

CDC Ebola Response Oral History Project

The Reminiscences of

Emmanuel D. Dweh

David J. Sencer CDC Museum

Centers for Disease Control and Prevention

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Emmanuel D. Dweh

Interviewed by Samuel Robson

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Gbarnga, Liberia

Interview 1 of 1

CDC Ebola Response Oral History Project

Q: Today is March 4th, is that correct?

Dweh: Yeah.

Q: Twenty seventeen, and this is Sam Robson here in Gbarnga, Liberia, with Mr.

Emmanuel Dweh. Am I pronouncing your name correctly?

Dweh: Sure.

Q: Great. [laughs] Thank you. And I'm here as part of our CDC Ebola Response Oral History Project. We will be talking first a bit about Emmanuel's history and then about his role in combating the Ebola epidemic of 2013 to 2016 here in Liberia. I thank you very much for being here, Emmanuel. To start out, would you mind pronouncing your full name for me and telling me what your current job is?

Dweh: Okay. I'm Emmanuel DePaul Dweh from Bong County. I work as the disease surveillance officer for the Bong County health team, Ministry of Health and Social Welfare.

Q: Perfect. Thank you very much. Can you tell me when and where you were born?

Dweh: I was born in Ganta city in Nimba County. My father came from the southeastern region, Maryland County. He settled in Nimba County. He came to go to school. There is a nursing school in Nimba County, Ganta. After his graduation, he came across a beautiful woman and he married her from Nimba County. She also has a relationship with Bong County because her mother came from Bong County. They had me in Nimba County, where [I was born,] in Nimba County. I went to school there. Did my schooling in Nimba County. My primary school. I went to high school, graduated from the Ganta United Methodist school, and I also enrolled into the nursing school, the same nursing school my father graduated where I did my diploma in nursing. After that I worked for some time with the Ministry of Health. Two thousand three, I was responding to a cholera epidemic in Monrovia. It was during the heat of the war where Monrovia was heavily contested with many armed men, people fighting, and at the center we had a cholera outbreak. I was also responding at the John F. Kennedy Hospital to the very huge epidemic that we had. It was just next to Ebola. That was another nightmare. I worked there in 2003, and I later went to Benson Hospital to work with the hospital in the emergency ward as a nurse.

I decided to take my assignment to the rural area because I wanted to really test what nursing was, and I took a very challenging assignment across the Farmington River situated between Margibi and [Grand] Bassa County. At that time, there was a broken bridge. I was in that place serving the people of Margibi County, controlling a small

health facility there that they called Yarnwullie [Clinic]. I have been in the medical field for some time. It was where I took an assignment, I was called by Médecins du Monde to come to Bong County to take an assignment in a community they called Zowienta. Zowienta is another big community that is bordering Bong County and Nimba County, Grand Bassa County. I was between there and working as a screener for one of those health facilities in Bong County. In 2006, 2007, I decided to improve my skills, and I had to leave the post to come to the university to earn my bachelor's degree in nursing. After that, I took over the Phebe [Hospital] OPD, the outpatient department, controlled the outpatient department for some time. Later on, the county health team, having seen this enthusiasm and experience, they decided for me to take over the surveillance activities. I was appointed as the county surveillance officer for 2011 up to present.

Q: I have one question going back just a little bit. What was it that originally inspired you to go into the medical field? I know that you mentioned your father was a nurse. Was it that or what else was there?

Dweh: My father was a nurse and he was trained as a clinician, so he also served as the head of the department in Ganta Hospital, the outpatient department, for a very long time. He was very skillful, very skillful in diagnosing cases and clinical activities. My mother was—is also a health worker. She is a midwife. Can you imagine? My family are nurses. They have that interest in nursing. I grew up in this kind of environment from my childhood days. Even when we are playing, my friends and myself, they would tell me okay, you will role play as a doctor. I just grew up with this ambition of becoming a

doctor. But financial constraints. I was not having the opportunity to go to a medical school. After I have graduated from high school with that honor, I could have enrolled just in a medical school. At that time, they were fighting war—my parents didn't have a source of support. There was no medical school. All the schools in Liberia were closed down, so I had to wait until when I heard the opportunity that the nursing school in Ganta was about to open. I said by then, I have to make use of this opportunity because that has been my ambition. Even though this time is not in the medical field, I can use this as a stepping stone to get into the medical field, and I decided to just do nursing. I saw myself into it, and I mean, it's very good. I have the passion serving people and contributing my service to the Liberian government.

Q: You mentioned in 2011 you became the county surveillance officer, is that correct?

Dweh: Correct.

Q: Here in Bong County. That sounds like slightly different work than you were doing before. Focused on public health, and it sounds like earlier on you were maybe treating patients and then later you're having these more responsibilities over more people. Can you describe that transition to looking at the health of the community as a whole?

Dweh: Yeah, you know, this is challenging to me. First of all, the concept we had in Liberia, surveillance officers would just look like people who have some medical background. They were involved in sensitizing communities. They were involved in

detecting common cases in Liberia, and those cases are cases that we have been dealing with several times. They were not actually trained to probably many public health issues, complicated public health issues. Just taking you as a clinician to a public health technician was a big challenge. The first thing is, the limitation was there when it comes to understanding what a public health emergency is. There was a gap in Liberia, and we saw it during the heat of Ebola, even though we knew what some diseases were. But then to go into more details with public health investigation, raising alarm, and just the surveillance system, to set up the surveillance system. I tell you, surveillance was looked at like a one-man thing. In fact, it didn't give relevance at that time. It just meant the surveillance officer needs to go and collect some specimen and send it to the lab. Even when you collect the specimen, the disease prevention and control aspect of it is also the problem. In fact, the surveillance officer was the only person collecting specimens, which of course, I know was supposed to be the work of the diagnostic officer, and the surveillance part was everything was just like one person. So it was very, very challenging, I tell you. Yes.

Q: I'm sure. Had the situation changed at all between 2011 and 2014, when Ebola came?

Dweh: The situation has changed. I tell you now that I have more interest in public health with the support of partners in this country. Key parts have been built over time. I must be grateful to the World Health Organization, Centers for Disease Control, the Emory University, and our disease prevention and control. The strong man there, Thomas [K.] Nagbe and his group, those guys are strong because at the county level they support us.

Q: Were they supporting you even before Ebola, or did all of this happen because of Ebola do you think?

Dweh: Before Ebola, they supported us, but the support was also limited. We were only having one man up there, Thomas, and a few auxiliary workers. He had fifteen counties to contend with. He was the only of the three public health technicians out there, and sometimes he came to—they came to conduct some training. But during the time of the Ebola when we saw the heat and the wave of this Ebola, I think other international organizations and the world as a whole saw the need that, yes, surveillance officers need to be trained. They should not just be medical clinicians. I have one supervisor, my direct supervisor here, he played a great role in my life. He is now the assistant minister of preventive services. Dr. Samson [K.] Arzoaquoi. During the heat of Ebola, he was the county health officer in Bong County, and he's a strong man, so he made me to move. I tell you I went to every part of Bong County. I worked with him. He was like a teacher. But a tough teacher. Because he would send you on a mission and tell you the objective of the mission. You go to complete the objective—to come and give him a report. We learned it the hard way, and today I can say that I'm proud to be a surveillance officer and I want to really acknowledge them for the hard work and support, technical support and whatsoever they have given to me to be at this point.

Q: And I'll want to ask you about—his name is Dr. Suakoi?

Dweh: Arzoaquoi.

Q: Arzoaquoi? Thank you. But I also want to make sure we start at the beginning of Ebola coming into the country and then just kind of go from there. What do you remember about the early days when you first heard about Ebola being in the country?

Dweh: I had seen pictures—videos of Ebola in Uganda. I had been thinking. First of all, we had been having cases that looked like Ebola in our country. If you look at Bong County, we are in the central region. In years back, this Phebe Hospital was like a referral center for all hospitals in the central region and the eastern region. Lassa fever is an endemic disease and it's also a viral hemorrhagic disease. So Ebola brought the [unclear] to Lassa fever. It was something that could make you afraid, especially once I started to read the history of what Ebola did in other countries. I heard this over the media, BBC [British Broadcasting Corporation], that Ebola was in Sierra Leone. Ebola was in Guinea. I started to follow the track of how this disease is traveling from Guinea to Sierra Leone. I was afraid. I heard this information very early in the morning when I woke up from bed. I must admit, I was afraid. I felt terrible. I couldn't sleep that night. What was in my mind is the surveillance system is paralyzed. The surveillance system is a one-man thing. How are we going to do this when our people have poor habits when it comes to health? Even our health workers. How are we going to fight this battle? That morning I went to work and my boss man, Dr. Arzoaquoi, was the first to tell me, "There's Ebola in Guinea, so come, come, let us look at the history of Ebola." I think I felt a little bit relieved because my chief had notified me also and he's concerned.

We looked at the history of Ebola and I tell you, we carried out mass sensitization. He took to the airways. He went to hospitals. He went to clinics, and we talked to health workers—sensitized health workers, started to prepare even before Ebola could hit Liberia. When we had the first case in Liberia, Lofa County, we had Ebola in Lofa—Bong County is bordering Lofa County. So I knew that Bong County was also in a big problem. So we were waiting. We requested protective equipment. Other organizations came to our aid. The MAP International—Medical Assistance Program—they provided us the first set of protective equipment, the best. And we distributed it to facilities.

Q: Because was there little protective equipment before?

Dweh: Yes, I must admit. There was some protective equipment, because for us in Bong County, we started to prepare ahead of time. We asked our partners, MAP provided us protective equipment and we donated the protective equipment to the hospitals. The problem we had, the major problem we had was people, even health workers, could not believe that Ebola existed. And they relaxed. They were not even used to using the protective equipment. Having the material is one thing and knowing the importance of the material is another thing, and having the knowledge to use it is another thing. The equipment was there. That was the first challenge that we had. Even our lab technicians had problems because they would tell the surveillance officer to go and collect specimens. The first few cases, suspected cases—we had one case of Lassa fever came from Guinea, a ten-year-old girl came from Guinea. She was admitted in the Phebe

isolation ward, and we had some other cases around the bordering counties. We had those cases, but few deaths. So we did not collect specimens until some after death. We needed to collect specimens. We needed to do cardiac punctures. And nurses were relaxed. Lab technicians were relaxed. I had to go in to do cardiac punctures to collect the specimens because I wanted for us to establish the fact, what we were claiming. If it is not Ebola, what is it? Just within the course of the outbreak, just during the onset of the Ebola outbreak, we had cases of yellow—one case of yellow fever from Nimba County and all those specimens passed through Bong County. Can you imagine looking at our positions and where we are sitting? We had another case to contend with: yellow fever from Nimba County. We had Ebola enter Bassa County. We had Ebola enter Montserrado County. So we were in a problem and we needed a strong, strong surveillance system. We needed strong case detection. We needed case investigators. We didn't have the workforce. It was just a one-man thing. Entrusting it.

It was June 4th that we started to have cases—oh, no, July 4th. The first case that ever hit Bong County was a woman, elderly woman, came from Lofa. She had lost three of her children from Ebola. She felt frustrated, left from Lofa County to visit her daughter in Monrovia. At that time, she was incubating the virus. She was traced in Monrovia, tracked in Monrovia, but then she was not quarantined. A proper quarantine measure was not put into place. Information dissemination was a problem. So she got sick in Monrovia and they took her from Monrovia to Phebe Hospital. Just look at the time in between. If we were very, very active in doing case investigation in tracking cases, we could have tracked that case from the onset. [unclear] the woman had even lost the first child or she

lost three children from confirmed Ebola, confirmed cases. She entered Bong County. I was on the ward when I saw that case. I advised my colleagues that this case is showing the typical signs and symptoms of Ebola.

Q: What were those?

Dweh: What are we going to do? But nurses also have passion and care for people, but caring for people, you need to care for yourself twice, and they started to resuscitate this woman when she was unconscious. [unclear] they tried. Took her from the ward to the intensive care unit instead of taking her to isolation. Do you imagine people are also in the intensive care unit and are vulnerable to this disease? You infect them because the same person was caring for this patient who cared for the other patient. That's just how people got contact. One case, one case. What I'm seeing is that all this happened because of the knowledge deficit, disbelief, and people never had the knowledge with the infection prevention and control aspect. This one case is spreading to a big case because nurses got infected. And what it means when one nurse is infected, four nurses. The hospital became paralyzed. Fright. People started to leave the hospital. The hospital was almost closed. The chief medical officer and the chief of medical staff were the only persons so far that were taking care of patients now. A few brave staff were there. Nurses went back, and we had that setback. People who were in the hospital at that time who were also contacts incubating the virus were discharged to come home. They came home when they were incubating the virus. At that point, nobody could transfer them back. The citizens are afraid of the health workers, the health workers are saying that the citizens

are bringing in Ebola, and it was just like that. People felt afraid. When you are sick, you won't want to tell somebody you are sick because you would not want for people to say you got Ebola. So they left home, they became infectious, and in the process of caring—their family caring for them, they also became infected. It's just how the infection chain went on and on and on. Bong County was like one of the hotspots in Liberia. Very difficult to control. [There were] 393,706 persons in Bong County. How are you going to control some of the community far away, isolated communities? You don't have the workforce to go. We needed help. We needed help. But it took time for this help to come. It took time for this help to come.

It was one time when they sent the first batch of WHO [World Health Organization] staff, came to Bong County to help us. While we were discussing, we saw another fellow from Global Communities, one Pete was passing by. Another fellow from CDC, Michael—I'm just forgetting the last name. They were the first brains that started to put ideas together. Michael kept telling me, "Emmanuel, you've got to [unclear] and see what you can do." So we consulted Pete. "Pete, we need people to take care of dead bodies. We don't have the capacity." So dead body management came into place, contact tracing came into place, and we started to have support. We had technical staff. David Blackley was one of those. Kim [Kimberly A.] Lindblade was one of those. They came on the ground.

We have used the football stadium as a holding center. This was my second worry. I must be frank to you in this interview that I didn't support that. [laughs] The reason why I couldn't support that was that the population—we're looking at Bong County—looking

at the whole health team, the whole health system, to be like oh, we are giving them Ebola. If we use the stadium as a holding center where we will bring people, if we don't put in very strong measures into place, instead of being a holding center, it will be an infection ground. I was afraid. This is a football stadium that will also take a lot of people, again, it will have some economic implications because people will not want to go there to play football and that's one of the county's sources of income. What if it becomes a holding ground? What are we going to tell our people? Tomorrow they will blame us to say we are the ones that infected them. We would rather take patients from their community, enforce our strategy at the community, do strong community engagement, pick up the cases from the community to the ETU. But then the setback was we were still constructing our ETU [Ebola treatment unit]. The ETUs in Monrovia, Lofa, all [unclear]. So until September 15th when we completed our ETU, and the International Medical Corps that they have selected when it comes to treatment. I tell you that no health worker was infected in Bong County. If you compare Bong County to other counties, health workers were infected in other ETUs, but Bong County, no. That shows that there was a very strong and good practice when it comes to infection prevention and control. People came into the ETU when they were already bleeding into the late stage. The ambulance service was well set up. They responded and they were timely. At least they relieve us, and we started to succeed. But then we had problems also with communities reporting themselves. We had a lot of challenges. We had a lot of challenges.

Q: Can I ask, who was it who really pushed for building the football stadium as a holding center?

Dweh: Well, the football stadium, we had the county emergency management committee. In that county emergency management meeting, county authorities in consultation with the county health officer and some public health technicians decided that yes, okay, we can use a holding center, even though other people were skeptical about it. But then it was agreed by the county authority, so we decided to use the football field, but with extreme cautions, with extreme cautions.

Q: What are some of those cautions that you put in place?

Dweh: We kept people there. We monitored their temperature two times a day. We monitored them [unclear], and we made sure that people who were presenting with signs and symptoms were taken to the ETU at the holding center to do their test [unclear]. People who we took there, we knew that they were people who were also high-risk contacts, so we needed to monitor them fully. We needed to monitor them fully. So we were very, very careful because of that. We also had some technicians on the ground that went into places that [unclear]. He was there working to make sure that things were on course. But it was good also because we had a few cases that got infected there. Even though they showed signs, but then we were able to pick them up. The second thing was the way the holding center was arranged, people were not getting mixed up, so it was

arranged. The spacing contacts were arranged according to groups, and the monitoring aspect was perfect.

Q: You would keep people who were showing more symptoms separate from people who were showing fewer symptoms? Is that what that means?

Dweh: Once you showed symptoms, we take you out.

Q: Oh, just take you out.

Dweh: Yes.

Q: Okay. So how do you sort the people inside the stadium?

Dweh: We had a health worker there who could move in to monitor, so we had a team there, twenty-four-hour service to make sure they monitor, make sure they reached to them, and make sure they sensitize them. Because once you are sensitized, you will know when a person is near you and showing symptoms. You will be afraid and you will report it. The whole aspect of disease preventive control is community engagement. Community engagement is the key component. If you don't engage the community the right way and give them the method the right way, the risk communication message the right way— infections begin at the community and if those infections are not weeded out from the

community, the infection will grow wild. That's just what happened to Ebola in Bong County.

Q: You said that another worry of community members was that if they are kept in a holding facility that they would lose their source of income. Is that correct?

Dweh: Of course.

Q: What transpired there? How did you address that concern? Sorry, one second.

[interruption]

Q: Emmanuel, I had just asked you how you addressed the concern of community members that they would lose their source of income while in a holding facility.

Dweh: We addressed that through the leadership committee, the team. We have the outbreak technical committee that I was the lead. We had a county emergency management committee that involved the local authorities, the superintendent and paramedic chiefs. A very strong committee. The community resisted that we should not use the stadium. Well, we have to dialogue. We have to take our time to explain. We have to tell them the benefits and we have to tell them the precautions that we were taking to make sure that this place will not be a breeding ground. So we convinced them, and they were able to consent. Some were able to consent. Even though everybody would

not consent, again, we have to use the authority to come in in force that yes, we have to use this. Because we looked for other places. We went to another place first and the community refused. They said if we used the place—I mean, they would use guns and other things against us. Even there are people in the upper—in the house did not agree. We have to be thinking where we can put people. Our primary objective was to break transmission. If we have to break transmission, we have to also carry on some violations in the interest of the people. We were forced. However, we engaged them. We engaged the leaders. We talked to them to talk to the people. They talked to the people. They understood and we worked together as a team. What made us successful in Bong County, we worked as a team. We understood the differences, we discussed it, and we worked as a team. Even the chief was part of the emergency committee. The town chief down to the community members, because we took community engagement very seriously. See? They agree, even though people are using the stadium, we thank God that it didn't become a breeding ground. We took all the patients who showed signs away and before we left, we also decommissioned the stadium as well. So at this time, the community is using it. The fear has gone away and there is a recreation center for people.

Q: Did you notice things changing when the ETU was completed September 15th? Did that change things when that was ready?

Dweh: Yeah, it changed things. It changed things so greatly. It made me to think the first case we had. We brought the case from the hottest spot. This was a place that the community members had cultural belief, their traditional belief. They couldn't believe in

Ebola. We engaged the community [unclear], they resisted, and people were just dying. The community was a population less than three thousand. Can you imagine if you had more than twenty-five cases and you compare it with the case fatality rate? The attack rate—very, very high. So we took the first case. The first case was one Dada Collie. Took him. From there, we took another case, but those two cases, they all died because they were already in the late stage. But then people started coming to the ETU. Our health workers also were brave to work in the ETU. They said, we need to work to save our people. We don't want you to carry our people to Monrovia. No, we will work. So the health workers went to the ETU to work. They were trained. They have good doctors. We started to see many good signs. People were surviving. The counseling was good. When you survive it good, you will give the message of how they take care of you there. So people started to even bring themselves to the ETU. That was a good sign. Before, people used to run away, but then started people bringing themselves. It was good. It was a good end result. It was one of these that caused the transmission to break down. The ETU was wonderful.

In fact, they had the burial site right behind the ETU. One of my recommendations to the county authority for using this opportunity is that burial site should be well taken care of and a place that people will see. I will take this opportunity to tell the international community, the Liberian government, the Bong County authorities, not to forget about that place. A nice burial site was maintained by the International Medical Corps. Even though we know that programs that can be donor-driven, when the budget is finished and the county or the country do not have money to sustain it, it's a problem. But I think the

county should look into their limited resources and see what it can do to maintain that place. Because this is history. That people will know that one day this nightmare that happened in Liberia, it is evident that our children will believe. Because ten, fifteen, twenty years from now you will have another case of Ebola and people might deny it the same way. They will say it's made up. But when they see that site, they will take it seriously. So it was there. Global Communities was also getting dead bodies. The dead body management team was up-to-date. They were fully equipped.

We were on the ground during contact tracing, farther ups, and we had support. We had support. The Centers for Disease Control, the World Health Organization, they were on our back. I tell you, we would go into the bushes and you would see them behind us into the bushes. To my surprise, even some of those places we would go where we would have the flood—the other thing, I'm not used to water, but sometimes Kim would cross with us. I said wow, so you are used to water so much, [laughs] you know about water more than us? She would come, so we would go. There was an isolated place where we had sixteen cases, but we have more survivors. We took them from that place. It's a wonderful place. If you go there, the place is isolated. It's surrounded by water. Raining season time, you will see that you will walk over the monkey bridge that is higher than the top of the building. You will have no side rails. When you slide, you will fall into the water. The other side again you will walk. To walk from one point, to walk from the point there on the other side, if you walk like one hour forty-five minutes and the other side walk like two hours and thirty minutes. We were there with CDC, WHO, sensitizing the community, taking the people from there. How do you take a person who is seriously

sick, who is hemorrhaging, from that place to come to a safe ground? That was another challenge. In fact, that was one of the factors that exposed the people because in that community, I tell you that the first few cases, the index case that infected the people was a pregnant woman who died in the community, and they buried her through the traditional means. In our country, when they bury a pregnant woman, they have to first take out the fetus, and all those things are high risk, so it infected the people. People who were in their wet stage, to take them from the place to go, people got infected. But we sensitized the community, that once you will notice any sign, you have to start walking to the creek to cross the river. We have ambulances situated there to pick you from there straight to the ETU. They took our advice. We had more survivors there than death. The best approach is the community engagement approach, your relationship with the community. If you don't establish community relationships, you need to commit yourself to the process.

Q: Thank you. Emmanuel, can you describe some of the most important decisions that you personally made as the county surveillance officer?

Dweh: As county surveillance officer, a lot of decisions that were very important. I couldn't take chances and I was dealing with the contact tracers. I was dealing with the active case finders. I was dealing with the dead body management. Infection prevention and control was the key. Save yourself. If you infect yourself, you will infect your coworkers. Once you are not following the protocol, we warn you, monitor you, and if you continue, we drop you. If you miss the rules to the game, you are out of the group

and monitored for twenty-one days. Where you made contacts, high-risk contacts— becoming a health worker or intervening into those cases, those procedures, you are first of all at risk. If you don't follow the rules, the IPC [infection prevention and control] rules, that's a point. We tell you to wait, we monitor you. We take you out of the group for the twenty-one days. That was one decision and we were very strong for that. The second thing is the dead body management team. Make sure that they have every equipment before they go into the field. If that equipment is not correct, we don't want for people to manage because this was the problem with life. Those decisions were decisions that I gave my chief. Problems. When I came from the field, I would tell him, Chief, we need this and it must be done. I will follow up that it's done. Encouraged my contact tracers to go into the field. Advocated with the Centers for Disease Control to see how they could make their communication to be effective. Through that, the Centers for Disease Control was able to introduce the caller [unclear] group. This time, somebody in the field would not tell me I didn't have scratch cards. We have more than two to three thousand persons in the field, tell me if you start to provide scratch cards for everybody, that's a lot of resources.

Q: What is a scratch card?

Dweh: Scratch card is to recharge your phone.

Q: Oh, okay.

Dweh: There was another reason. The communication was effective, and to trigger the response was another thing. Ambulances could be correct. Even though the county did not have much ambulances, but then we have partners. They have no ambulances. I would have meetings with IMC [International Medical Corps]. “Look, we want the response to be quick, go.” IMC, they have some limitations. They couldn’t go after six. So after six, our ambulances, we took them. We say look, let us keep our resources. Let us keep hours after six. But once is somewhere and they’re calling us, get IMC, prepare, because they had a strong team. Then they go. In the evening, make sure that our ambulance is set to go. For us, we worked twenty-four hours, but IMC doesn’t move after six. That is their rule and you don’t change it. That was another thing. I was very, very sure that I followed up things to the letter because whatsoever comes from the field, whatsoever the response and there is problem, my chief will say Emmanuel, you are responsible. I didn’t want for my chief to tell me that I was responsible and I didn’t want the community to also think me responsible for cases. So I made sure that I was following up things to the letter. [laughter]

Q: Was your chief—was that Dr. Arzoaquoi?

Dweh: Yes, Dr. Arzoaquoi. That’s the strong man. That’s the man who made me strong.

Q: Can you describe him a little more?

Dweh: Dr. Arzoaquoi is a medical doctor. Even though he is not a virologist. But he has strong contact with communities. Today, if you see the communities, we are friendly with the communities. The relationship with the county health team and the community and the local authority is strong. Dr. Arzoaquoi was the one who established that relationship. That friendship. The second thing about him, he's a very tough man. When he tells you he wants this result, don't take it for a joke—he wants it. You must follow it up and make sure that you give him that result. He will only give you the instruction, “Do this. I know you have the capacity.” When you achieve, you will come to him, you will discuss, and he will tell you where you went wrong or you can improve. The next time, he will send you another procedure. So he was very strong. Strong about it and the system. Everybody used to be afraid when Dr. Arzoaquoi is talking. The chief is talking—take it serious. Besides, he's a teacher. Every week at least one time in a week, he will call you to teach you. I usually call him Teacher. That's the name I got for him. But today, he's at the level of the Ministry [of Health]—he's the assistant minister for preventive service. He was here also yesterday when we were having the surveillance review meeting. I think he's one of those in Liberia that is great. He will do many things in Liberia. He was with us in Bong County and we're just blessed to have Dr. Arzoaquoi in Bong County.

Wheresoever we go, we have challenges. He will intervene by calling the local communities who give us the support, and when he calls a meeting, the local community will come. Today, his successor is also enjoying that privilege because Dr. Loki [sp] is also a strong man, but then Dr. Arzoaquoi already set the platform so he just uses it through. When he wants to talk to the community, call a community meeting one time. If you call a community meeting today, you say look, I want to have a community meeting.

I want to have a meeting with the paramount chief. I want to have a meeting with the district commissioners. Even if you call them, you give them a late invitation, they will come because they want to hear what the doctor is saying to them. He's just got an influential personality.

Q: Thank you for describing him. Can I also ask you to describe Kim Lindblade?

Dweh: Kim is a public health technician. Kim is a quiet woman, but Kim ensures that things are done. She's got you. She's with you. And we had hotspots. We had hotspots. The two strategies she brought to me that I really [gained] experience from. The first thing is the mentorship. Sometimes we go to some of those hotspots and we don't see any contract tracers, but there's a need. So we quickly mentor people, put them there—follow them up. Her case detections, her community follow-up, she's the one who even brought about the caller [unclear] group. She supports you to do your job. I'm sorry I didn't bring my computer, but I always have that computer. Kim was the one who made sure that I have the computer. Can you imagine the surveillance officers, we didn't even have computers to work with. After I work, work, work—I wouldn't have a computer. The first time they sent a computer, but I didn't know where it went. Kim said, "Emmanuel, don't worry." Made sure that I had the computer. I still have that, my computer, and I'm using it. I said even when I came, I would not use this computer. Now I'm using it to do all the work. She really helped us when it comes to the coordinations, when it comes to management of things, she worked with us here. She was the CDC that ever came in Bong County with hard experience of leadership and coordination. We had other

technicians in the field who are ready for [unclear]. But when it even comes to negotiating with the boss—because sometimes it would be tough between my boss and her. My boss would tell me, “Kim, make sure that she does it good.” You know, and we go in the field. One place that we really responded well, the place they call Sackie Bomota. That’s the two hours walk where we would walk over the monkey bridge. That’s where we had twelve cases, twelve or fourteen cases. We had fourteen cases in Sackie Bomota and we had eight survivors. It was Kim’s intervention. It just—look at her strength. Fourteen cases, eight survivors. Those survivors are still there and can be the living testimony. Kim crossed us through that place. We went there with a lot of people. We went there with some CDC officials. A long distance that we didn’t even believe that Kim could walk that distance. [laughs] But we went there and we intervened. She came back again and said, “Look, Emmanuel, we need to do another follow-up to that place because that place is a really high-risk area.” If we had not intervened, there was going to be another disaster for Bong County. Because we were intervening to another place where we had huge resistance from the community, and that community, the population of that community is less than three hundred. Three hundred fourteen infected. So just see, sometimes the populations and the number of people that get better, you would get to know. We were there and she made sure that she worked with me and gave me all the technical support. I tell you that I have not a master’s [degree] in public health. I’m just a nurse. It was through Emory University and the Centers for Disease Control that I have to do the frontline Field Epidemiology Training Program. This was just after the Ebola crisis, and we did it. Today I can tell you that I’m able to intervene into public health emergencies, and it was through the support of Kim, through the support of David,

through the support of Tristan—those guys were in Bong County. They came to give us the support. Tristan was a loud man and very tough. [laughter] Some call him Soldier. They call him Soldier. My chief got his own [unclear] with Tristan. He said, “Why does Tristan want to find out everything?” But Tristan’s time was during the time of the measles outbreak, in 2015, and he was very straight-to-the-point. He said, “Look, Emmanuel, I hope you’re not collecting specimens [unclear]. Don’t do that. That’s not your job. Let the people collect the specimen and show that the specimen go.” But if the people do not collect the specimen, the specimen is not collected, the specimen will not go, and the coordination for people to collect the specimen is not there. So we had cases spreading in the community. At one coordination meeting at the IMS meeting when Tristan went there, he blasted. [laughs] He said, “Look, come on. Measles is in Bong County, we need to respond to measles. WHO is sitting down here. The measles is in Bong County, so let’s respond to the cases.” At that time we had 106 cases of measles. We responded to those cases, so I knew that to respond is very important, but to respond and to respond timely. However, Tristan left, but then the legacy he left with me is to respond timely. It was through that experience, all of them helped me here to make me strong. The WHO field officer that was on the ground. We had one Dr. [unclear] Moses here. Another man that really, really stressed me out because even nine o’clock, ten o’clock in the night when there is a case, he would call me up and say, “Emmanuel, you got to wake up, we need to go to look for those cases.” Sometimes early in the morning when I was about to have my breakfast, he would call me. He said, “Are you eating baked chicken? Are you done? We need to go.” It was very, very stressful for me and I tell you, Sam, actually, [unclear]. I was on the [unclear]. No rest. No rest. But then, I

needed to do it because I felt that this was the time to perform my duty and to work for the Liberian people. I worked with all my might and my strength. I became successful because of these partners—mainly, the CDC partners, the WHO partners that were on the ground. They gave me the support. CDC was just like my friend. Kim, we used to talk. David was a quiet man, but he was very good when it comes to giving technical support. But Kim is a surveillance officer. Kim is a surveillance officer. I learned from them a lot. Yes.

Q: One thing that you mentioned that you learned was bringing the computer everywhere. What was so important about the computer? Why was it important to bring?

Dweh: You need it to follow up what was happening. You need it to get updates. You need it to do your reports. How are you going to do your report when you don't even have a computer? So, reporting is another key thing. Now I'm using this computer to report for other cases. If you are here, maybe I would bring this computer because I'm not living—I live right in Gbarnga, so that you can really see this computer. Kim was the one who provided this computer to me. I really work with it, and I used it for some time. For each time my children want to touch that computer, my daughter wants to touch that computer, I say, "Leave this computer." [laughter] "Even if this computer is very old, it's for me. I will use my salary to buy your computer, but this computer was given to me to work with it, so I don't want for anybody to touch it." This was the time that I was in need of a computer. I'll tell you, she provided it, she insured that I used the computer, I got the computer. Usually things come to people and when things come to people you

don't receive it. But this time, the computer came to me directly with my name and everything, so they gave me the computer and now everything is—

Q: What did you use to keep track of how many cases there were? Was that on the computer, or was that on spreadsheets, or—

Dweh: We used the spreadsheets. We have the data managers, so I would work with the data managers. We had the desktop when we started. We kept the cases and they sent some experts to also teach us. Michael from CDC was the one who put that into place, and he used the extra sheet to put some system into place where when you plug in the data, it will give you what you want. He set up the database before he left. Michael was the one who worked with us to write the proposal for the dead body management team, and he set up the system.

But then one unfortunate thing. CDC would come, we would start to feel their presence, and they would just leave. They would not stay long. Michael just spent just three months. Kim came also when I was getting so used to her [unclear], then she just left. David, two months. And other good, good people came with this kind of vast knowledge. They just left.

Q: What did that do to the response?

Dweh: Well, when people come, you get used to them, and they just leave. Another person will come and there will be some interruption, actually. Because their objective would be different. [unclear] to follow up things the way it's supposed to be, that the way the other person was following up, too. He will have his own strategies and other things. But however, it's just building your capacity and leaving it with you to make it sustainable. What I noticed is once they leave the little idea with me, when they go, myself I call my group and say, "Let us do this. I think these people left some important message with us, now let's carry on the message." This is how we were doing what we were doing and we did it successfully.

The strategy that CDC had left on the ground is they established the emergency operations center, they supported the emergency operations center, and that emergency operations center is what the nation needs to look at. It's what the world needs to look at. That we are addressing public health emergencies. We need to look at emergency operations centers. We need to be able to trigger a response immediately. The calls that come to the emergency operations center, we need to receive the call, be able to analyze the calls, be able to do the investigations timely and respond timely. If you have twenty cases and out of those twenty cases you needed to respond within twenty-four hours, and you respond in forty-eight hours, I think it's late—or seventy-two hours, it's late. We learned from that. We knew that many of those cases that we responded late to the transmission was why. Those that we responded soon, the transmission—we broke the transmission soon. The evidence was Sackie Bomota. That area I told you about that Kim and myself went. Everybody's focus was to the hotspot, but that place was another

hotspot. Looking at the location of the place, when she saw the place, she said we need to go there. And we went there. We responded timely, timely. We had fourteen cases, eight survivors. Those cases that died are the first set of cases before we were notified. You see, that's a lot of experience we have had from this Ebola thing, and other friends who are hearing me who also understand that we need to learn how to intervene in a timely manner.

We need to learn how to use our community engagement strategies the best way. We need to understand the perception of the communities and plan our risk communication very well. If you don't put those things into place, it will be very difficult. It's painful when you have the idea and the people are not willing to accept you. You will ask yourself, what is happening? Why is it that the people do not want to accept me? Before this idea, I think I can put the people, but there is some communication breakdown along the line. We passed through all these things and we learned a lot from those partners that came, the experienced partners.

Q: Was there anything else that when you look back, you think if CDC could improve this, it would be better?

Dweh: Yes. CDC is giving support. You and I know that CDC is giving support, until you get to go to the Ministry of Health, do the partners mapping. For a review meeting we had just this few days. In fact, CDC is doing everything. But the capacity building, the capacity building that CDC has started, they need to ensure that it's done and it's done

the way they want it to do. One best strategy is all my district surveillance officers have gone through the FETP [Field Epidemiology Training Program] frontline. I have also gone through it. They know what it means to respond to cases. Now, CDC is also carrying on the intermediate programs in the country, and that will be in April. We hope that surveillance officers will be a part of it. We hope that a county capacity will be built. If you don't build the county capacity in the next ten to fifteen years, tell me—you will have a brain drain. You will have a brain drain. Cases take place in the community. Every case begins from the community and it's important to engage the community. If you want to break transmission, you start to break transmission from the community. Another thing is sustainability. All those things will go away. CDC will say, no, this time Liberia can make it for herself. But how are you going to sustain the program? This exit strategy needs to start going on gradually until we can get used to it. Right now, the community, even the surveillance does not have support at our point of entry. No support. People who were there doing surveillance—no money to incentivize. They have left. The county does not have the budget to sustain the program. IOM, International Organization for Migration, the one that's been supported by CDC to do this job—their contract is over and now the bordering communities are vulnerable. Tell me, what will happen with the cases coming from Guinea where we border? What will happen if those cases spill over to Liberia? Before we come to the international community would come in. It's difficult because of lack of resources. We need to learn how to sustain the program and CDC [unclear] back on that. Because CDC wants results. The results they want is they want to see transmission breaking into our region. They don't want to see epidemics. If you don't want to see epidemics, you need to improve the men's skills and make sure that the

men's skills are improved. They need to follow up how their resources are being used. Don't just give it and turn your back. If you give me a pen and you give a pen to John to give it to me, make sure that I receive the pen. Like she did with—like Kim did with my computer. She made sure I received my computer. And I'm using my computer. When she gave me the computer, at that time I didn't have good skills in computers. I was just doing [Microsoft] Word. But this time, I used that computer to do my report on the answer sheet. I used my computer to do my PowerPoint. Another new strategy that CDC have brought in is they have brought another software, the Epi Info, that they have just started to teach us. If you don't have computers, you can't do any of these things. People are coming from Atlanta to teach us to do these things. When we learn it, we need to also pass it over to our people so that we can be able to pass the knowledge on because it's very expensive to teach everybody. So they [unclear] space. The FETP program is one of the best, and the whole world should think about building people's capacity that way. Hands-on job. We go to class, we come, we practice in the field. I will learn the African scenario better than I'm sitting down in Washington, DC, and learning about Tanzania that are not on the ground. [laughs] I'm in Liberia and doing Liberian things with the mentors behind me, and that is good. So I think they can even bring people to Africa, to Liberia, who will go through the [unclear] for master's and be able to teach many persons to acquire that knowledge than for you to send one person to Europe, and you will spend more than fifty, sixty, one hundred thousand [dollars] that you are able to spend on two persons here. That is another strategy that they have put into place. They need to continue to support Liberia to set up this system so that tomorrow their dreams will come to reality.

Q: Thank you very much, Emmanuel. I'm not sure that we've gotten to how the response wound up when you started to see cases drop, and how that felt and what happened then.

Dweh: Well, when cases started to drop, we were still doing active case search. The first thing was we looked at the case definition and the case definition we were using, the general case definition. Sensitivity where we see cases that just resemble community [unclear] cases and send them to the health facility. The health facility will do further investigation. We would collect specimens. You would see many of the county surveillance officers report two hundred, one thousand cases of suspected EVD [Ebola virus disease]. Those cases were just—we were mainly busy doing sensitivity, and we were doing more community engagement to make sure that whosoever presented with signs and symptoms should be weeded out from the community. We should make sure that the community is free. That community engagement aspect went on for some time. When we were not seeing cases after we have done more than three, four—in fact, five, six thousand tests, we decided to change the case definition to a specific case definition. This time, it's not just anybody with fever, but let us look at the specific case definition. We started looking at the specific case definition. We started to redo just collecting specimens for any dead bodies. Before, we used to collect specimens from anybody that died. But this time, when we collect specimens, we will make sure that you meet up with the case definition [unclear] and collect specimens. We started to streamline our resources because the resources were wearing out. No more vehicles for dead body management. No more vehicles to go in the field. If we have one surveillance vehicle, the

dead body management team, the environmental health technicians, would get into the lab vehicle to go to do—because we know that this material, to even maintain that is expensive. If you give our county twenty vehicles, it's good. But are we going to maintain them? Look at the resources we have. Sometimes the twenty vehicles, you need to change the tires for ten. If you're changing tires for ten vehicles, it's not a small money. If you look at the budget we have in the government, we have a limited budget to operate. Just maintenance alone will carry all the budget. How are you going to work? How are you going to produce results? So we started to learn to work with limited resources again. But then to prioritize our activities. There is the key. We have set up an isolation center, set up the screening room. It's still ongoing. Continuing to enforce the infection prevention and control measures because once you have a good infection prevention and control practice, you will see that you will also protect yourself and you will protect other people. You have to do that. You have to engage the community. Gradually, the caseload started to drop. Response became rapid. Because I tell you, the last case we had in Margibi County—we had a case in Margibi County. I followed up in Margibi County to know where those cases are coming from. I had to work with the surveillance team to know the nature of the case and to track two cases. We were also having Ebola with Margibi County. In fact, in some of our facilities, people came from Margibi County to enter our facilities.

Q: To Bong County?

Dweh: To Bong County. When cases were in Margibi County, I didn't want to have the experience I had with Lofa County. I needed to have the nature of the case. I needed to intensify my surveillance activities at that point. Bong Mines was another place I had to intensify my surveillance activities because they would come from Margibi to Bong County. The Salala district, where you have Togbapolu clinic, was another place. You just cross from one there, so intensify my surveillance activities. How do I intensify? I take case search, sensitization of the community members, continue to have refresher and mentorship, increase my supervision activities along there, and make sure that they report to me on a daily basis.

Q: It sounds like you must have been in contact with the surveillance officers in bordering counties.

Dweh: Of course. Of course. In fact, we started to have meetings and Kim was the one who also brought that idea that surveillance officers from Nimba—I mean from Bong, Margibi, Montserrado County. Those three counties, even Nimba County—we need to be having meetings to be sharing our experience, to be getting updates. Usually, I have cases of Lassa fever from Nimba County to Bong. If I had cases from Nimba to Bong, I consulted the Nimba County surveillance officer. We exchanged numbers. We talked. We had meetings on this emergency. Come quick, quick to meetings of surveillance officers get together and see how we can respond to cases. Just in a recent town, there were case of measles death in one of our facilities. The case came from Nimba, and I had to consult the Nimba County guy. “Look, the cases are coming from Nimba. You know

that there is a measles outbreak in Guinea and they have a case there of measles death, so follow up. Make sure you follow up and keep me in touch.” We are on that, and things are working very well.

Q: Is there anything, Emmanuel, that I have not asked about that you’d like to share? Any vivid memories you have, recollections that you’d like to share before we end the interview?

Dweh: Well, this is an opportunity, and I want to tell you thank you for the interview. It’s not easy for a surveillance officer, especially when you have a limited workforce, where you see yourself in the gap—to fill in the gap for everybody. It’s not easy. The beginning of the surveillance activities of the EVD outbreak, it was a problem, and I felt the impact. I was the only surveillance officer, I was the only one collecting specimens, I was the only one receiving specimen results, so they would call me from the National Reference Lab [Laboratory] to give me the results. Everybody wanted to know. It’s like I was the one giving the death sentence. I would receive more than one hundred calls a day because once a relative had been taken to the ETU, they will want to know what is happening. That was another bad thing for me because people called me and called me and to some extent I had to be cutting them off. We need to work as a team. If you don’t work as a team, you will always have problems. We wouldn’t have had too many outbreaks from place to place. Even though we have had an outbreak, it was possible, but then we were going to contain it if the workforce works together. So, I had [unclear]. I couldn’t rest going from one point to another with limited resources. Sometimes I’m going out, I don’t

even have water to drink. When you're overworked, you get sick. The stress. That's a main tool: keep building the capacity of health workers so that they can understand how to intervene. Not only the surveillance officer, but also people who are working in hospitals. Public health emergencies need to be taken seriously in Liberia, and I'm happy that we have had a Public Health Institute. We hope to see that the Public Health Institute will be able to do the best they can do to carry Liberia to the top. For us, that is not an easy thing. I recall I went for the case to one of the hotspots. I took the case to Monrovia. It was bad for me. There is a lady that I took. She was strong. I talked to the family because when I went to the community for the lady, in fact, they surrounded me and wanted to steal my car, the vehicle. I had to talk. Say, "I will carry your mother. I will bring her back." I took her to the hospital, but they delayed in taking care of her only because the hospital was overcrowded. The ETU was overcrowded. I did my best, took her from the community, reached her to the hospital—I reached the hospital when she started to have diarrhea. She died in the vehicle, in the hospital. I felt very, very bad. To even take her body from the vehicle, it took more than four hours. Just to tell you how the delay in intervening into cases can be like. They took her body from the vehicle. I left from the hospital after twelve to come from Monrovia to Bong County. The driver was so sleepy, and I'm sorry, he also died from Ebola because he got infected.

Q: And you were also in the car?

Dweh: I was in the car. The driver got infected from another case, but not that case. He was not very careful with things. I noticed that he had poor infection prevention practices.

I told the administrator and other people that I don't need this man in the vehicle. In fact, we have to assign him to another place. But only because we had limited manpower we had to use him, and to the extent that he had to help a little child who was infected down from the vehicle. That was not his duty. The term of reference, when they give you the term of reference, when they give you protocol, the reason why they give you protocol is they want you to follow the rules. If you don't follow the rules of the game, things happen. Why should the driver help somebody now? All these things were problems, and they are people I'm close to.

Q: When did this woman pass away?

Dweh: It happened in August.

Q: In August?

Dweh: Yeah, August 2014.

Q: Got you. Before the ETU was built?

Dweh: Before the ETU was built.

Q: In Bong?

Dweh: Yes. I started to have that reflection. In fact, after I took my colleague nurses at the ETU in Monrovia, and the interactions I had with them before they got infected—when I sit down and reflect my mind on all this, sometimes I feel very bad to say but I wish my colleagues would just listen to me. What if a surveillance officer comes to you and tells you if you don't have gloves, don't work? "You are not supposed to touch. You will touch when you have the materials." Then they give you the materials, but you don't make use of it. Why should people have materials to work with and you leave the materials to infect yourself? Knowledge is important, and to practicalize the knowledge is the key. You have the knowledge, but you will not practicalize it. If you don't practicalize it, many people die because they couldn't believe. Many health workers die. It's not because they didn't have materials, it's because they couldn't believe. Ebola, even though it was strange, but we have been dealing with viral hemorrhagic fever. We have been dealing with Lassa fever. Just before the Ebola outbreak, we had twenty-two cases of Lassa fever in Bong County. Twenty-two cases of Lassa fever in Bong County, and it was 2013, there was the highest cases of Lassa fever that existed in Bong County for ten years. Why should Phebe Hospital be the one that had been taking care of Lassa cases and people die from Ebola that looked like Lassa fever? Sometimes we feel bad when you think people are not supposed to die and people die. People who die, health workers who die, are people that I work with, are people that I was close to. So usually when my mind goes to it, I feel very bad. I feel very bad. And I pray that this shall be the last. I was seeing that even if it would cause me to lose my life, I will not give up because I have tension. I had tension from my family. I had tension from my two daughters to the extent that they quarantined me. They isolated me also because I was to the front. I was at

the front of this battle. There was one time I came from work to my door. My daughter wrote, “Twenty-one days.” I said, great. My daughter writing twenty-one days. It means that she also knows about how transmission can take place. I called and said, “Thank you. I think you needed to write this, but I will be in my apartment and you will be in yours. So everything you get from me, just put it there.” And every day I will teach them about how people can get infected, what they needed to do. They followed my advice, and today we are living together. Sometimes, it’s just they will be joking with me. They say, “Daddy, Ebola time, the people, they’re counting everything all okay because you turned into a skeleton.” I say, “Yeah, I had to turn into a skeleton.” I thank God that I didn’t give up to the battle—even though I have to perform my duties because I’m a Liberian and Liberians were dying. I took off as a health worker, and that was the time to perform my duties, so I performed my duties. I never betrayed the cause of the Liberian people.

[laughs] That was it, and we are here again, continue to sensitize our community, continue to work with our community and working with our health facilities to make sure that we do active case searching.

Q: There’s one thing I still don’t understand about—why were you also in the vehicle taking the woman who passed away to a facility as a surveillance officer?

Dweh: When you are a surveillance officer, I was working as a surveillance officer, I was acting as a case management man, because I was carrying the cases when I was not the one who was supposed to be carrying cases. But there was nobody. So I would carry the ambulance, pick up those cases from the community, carry those cases—I would come

for the specimen, carry the specimen. I would get the specimen results and pass, get feedback. I was doing everything. Sometimes, people would die and we want to know this case is very, very suspicious—highly suspicious. Somebody dies, all the lab technicians standing by—I got to go in there to collect a specimen from the dead body. I was just in the race. And God was with me. God was with me, and I was doing it with caution. I was doing it with my mind. I was very careful and made sure that I followed the infection prevention procedure to the best of my ability, to the best of my knowledge. I can tell anybody that since I was not infected because I took this IPC, it means that anybody who follows the best IPC process, you will not be infected. You'll always be ninety percent on the safe side. That is why, in fact, one of the strategies that I have to fight any infections in Bong County is the ring IPC. That is another procedure. That is another strategy. The ring IPC. If this room is infected, I will sensitize this room, all the rooms around this room, and you force the IPC. Then I will come into this room to manage. That's a very good strategy and that strategy, you follow that strategy and you will contain cases. IPC is very important. We have IPC partners on the ground who are supporting IPC.

But people are hard to—it's difficult. So that's a gradual process. Even though it's a gradual process, Liberia will one day graduate from this thing. I know it will take a very long time. It will take a long time, but what Liberians know is Liberians know that I tell you Ebola was not a joke. Entrusting it there is a zoonotic disease, as you know, but can you imagine some people are still eating bats? [laughs] Some people are still eating bats, even to the point when we were talking about do not eat bats, people were still selling

bats. When the law enforcement officer has to come to stop them. Don't sell bats. Why are you infecting the community? Why are you exposing the community to danger? But people are still eating bats. Bong County is noted for bats. Sometimes you go so you will bring one hundred to two hundred bodies of bats. Not too far from here. People take it as a source of protein, and they eat it. I wish [unclear] we are still at risk. Until you can come to yourself to say, look, I need to desist from this risky behavior, you will still be kidding yourself—a risk that one day you will get exposed. That's the problem we are having in Liberia.

Q: Thank you very much, Emmanuel. I think our time is a bit short now and we might have to end the interview. Were there any last thoughts?

Dweh: Thank you so much for coming and please extend my regards to the Centers for Disease Control.

Q: I will do so.

Dweh: They have impacted greatly my life. They have helped me, the county, and today. Tell them that we have reached some capacity to respond to outbreaks, but our capacity, we are still building. They are the ones who are supporting the process and I am hoping that I will be part of the cohorts that will be on the intermediate FETP. As aligned, I came to also affect this thing in my county. We are still hoping there for their support. So tell them, and extend our regards to them.

Q: I will do so. Thank you very, very much.

Dweh: Yes.

END